

**What is Claimed:**

1. An electrical power meter having electronic components, comprising:  
a power supply for converting alternating current (AC) voltage to a direct current (DC) voltage for powering the electronic components; and  
an optical diode in series with the power supply.
2. The meter of claim 1, wherein the optical diode converts an electrical signal to an optical signal.
3. The meter of claim 1, wherein the electronic components include at least one of the following: a microprocessor, an analog-to-digital converter, a digital signal processor, and a resistive divider circuit.
4. The meter of claim 1, wherein the optical diode is a light emitting diode.
5. The meter of claim 1, wherein the AC voltage is provided by an electric power line.
6. The meter of claim 1, further comprising an optical communications port in communication with the optical diode.
7. The meter of claim 1, wherein the optical communications port provides data relating to the operation of the meter.
8. The meter of claim 1, wherein the power supply is capable of providing power sufficient to operate the optical diode and the electronic components.
9. The meter of claim 1, further comprising a switch in communication with the optical diode.
10. The meter of claim 9, wherein the switch comprises a transistor.
11. The meter of claim 9, wherein the switch is in parallel with the optical diode.
12. The meter of claim 9, wherein the switch allows DC current to bypass the optical diode.
13. The meter of claim 9, wherein the switch provides DC current to the optical diode when a request for communication is received.

14. The meter of claim 13, wherein the DC current provided to the optical diode represents communication of data with an optical communications port.
15. The meter of claim 9, wherein the switch is controlled by a microprocessor device.
16. The meter of claim 8, further comprising a buffer transistor in series connection with the switch.
17. The meter of claim 16, further comprising a microprocessor for controlling operation of the buffer transistor.
18. The meter of claim 8, further comprising a first resistor in series connection with the switch.
19. The meter of claim 8, further comprising a second resistor in parallel connection with the switch.
20. The meter of claim 1, wherein the optical diode causes a voltage drop of the DC power provided by the power supply.
21. A method of reducing power consumed by an electronic utility power meter having electronic components, comprising:
  - receiving AC power from an electric power line;
  - converting the AC power to a DC power;
  - providing the DC power to the electronic components; and
  - reducing the DC power provided to an optical diode in series.
22. The method of claim 21, further comprising providing DC current from a power supply in series connection with the optical diode.
23. The method of claim 21, further comprising providing the DC power to electronic components in a parallel circuit configuration.
24. The method of claim 21, further comprising the optical diode converting an electrical signal to an optical signal.
25. The method of claim 24, further comprising communicating the optical signal with an optical communications port.

26. The method of claim 21, wherein the power supply is capable of providing power sufficient to operate the optical diode and the electronic components.
27. The method of claim 21, further comprising switching a DC current provided to the optical diode by the power supply.
28. The method of claim 27, further comprising bypassing the DC current around the optical diode.
29. The method of claim 21, further comprising:
  - receiving a request for communication; and
  - providing the DC current to the optical diode in response to the request for communication.
30. The method of claim 27, wherein the DC current provided to the optical diode represents data related to the operation of the meter.
31. The method of claim 27, further comprising controlling the switching with a microprocessor device.